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1632
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Practitioner's Docket No. 2498/101

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Mohammad B. Bahramian, Helmut Zarbl
Application No.: 09/472,558 Group No.: 1632
Filed: 12/27/1999 Examiner: Paras, Jr., P.
For: Muting Gene Activity Using a Transgenic Nucleic Acid

Mail Stop Non-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT TRANSMITTAL

1. Transmitted herewith are the following:
 - a) an amendment for this application and
 - b) Declaration of Mohammad B. Bahramian, Ph.d. In Support of Applicant's Response including Exhibit A , Appendix A and Appendix B.

STATUS

2. Applicant is a small entity. A statement was already filed.

CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10*

(When using Express Mail, the Express Mail label number is mandatory;
Express Mail certification is optional.)

I hereby certify that, on the date shown below, this correspondence is being:

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37 C.F.R. § 1.8(a)

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37 C.F.R. § 1.10*

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TRANSMISSION

[X] facsimile transmitted to Examiner Peter Paras, Jr., Art Unit 1632, fax number (703) 308-4242.


Signature

Date: August 6, 2003

Barbara J. Carter

(type or print name of person certifying)

* Only the date of filing (§ 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under § 1.8 continues to be taken into account in determining timeliness. See § 1.703(f). Consider "Express Mail Post Office to Addressee" (§ 1.10) or facsimile transmission (§ 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

Amendment Transmittal--page 1 of 2

EXTENSION OF TERM

3. The proceedings herein are for a patent application and the provisions of 37 C.F.R. 1.136 apply. Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.

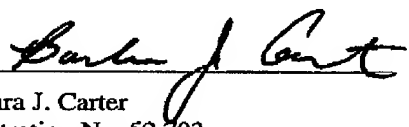
FEE FOR CLAIMS

4. The fee for claims (37 C.F.R. 1.16(b)-(d)) has been calculated as shown below:

	(Col. 1)	(Col. 2)	(Col. 3)	SMALL ENTITY			
	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NO. PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDIT. FEE		
TOTAL	22	—	56	= 0 x \$	9.00	= \$	0.00
INDEP.	4	—	7	= 0 x \$	42.00	= \$	0.00
FIRST PRESENTATION OF MULTIPLE DEP. CLAIM				+ \$	0.00	= \$	0.00
				TOTAL ADDIT. FEE		\$	0.00

No additional fee for claims is required.

Date: August 6, 2003

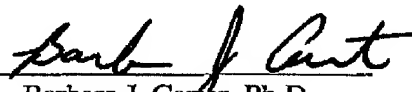

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Bahramian et al.
Appl. No: 09/472/558
File Date: December 27, 1999
Invention: MUTING GENE ACTIVITY USING A TRANSGENIC NUCLEIC ACID
Art Unit: 1632
Examiner: Paras, Peter Jr.
Docket No.: 2498/101, formerly 2281/102

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being transmitted by facsimile to the United States Patent and Trademark Office, Alexandria, VA, 22313, to Examiner Peter Paras, Art Unit 1632, fax number (703) 308-4242, telephone number (703) 308-8340, on August 6, 2003.



Barbara J. Carter, Ph.D.

Honorable Commissioner of Patents
Alexandria, VA

RESPONSE G

Dear Sir:

Applicants would like to thank the Examiner for telephone conferences during prosecution of the above-referenced patent application, particularly the most recent telephone interview of August 4, 2003. Applicants would also like to thank the Examiner for withdrawing the prior art rejections.

AMENDMENTS

Please amend the application as follows:

In the Claims

Please amend claims 11, 14, 57, 60, and 69, and add new claims 70-84 as follows.

In addition, please cancel claims 12-13, 15-24 and claims 61-68.

Claims 1-10 (**cancelled**)

11. (currently amended) A method for muting expression of an endogenous gene in a cultured population of animal cells, the method comprising:

(a) screening to identify~~[ying]~~ a muting nucleic acid composition having a sequence that is homologous to a sequence in the endogenous gene, the nucleic acid composition being double stranded ~~[or having the capacity to become double stranded upon delivery to the population of cells]~~, wherein screening to identify~~[ing]~~ comprises the steps of:

(i) designating the entire gene sequence as ~~[the]~~ a potential muting nucleic acid composition;

(ii) identifying a first sequence ~~[muting fragments]~~ of ~~[the]~~ muting nucleic acid composition homologous to portions of the endogenous gene that mutes at the level of post-transcription;

(b) delivering the first sequence of muting nucleic acid composition into the population of cells; and

(c) muting expression of the endogenous gene ~~[wherein muting comprises muting at the level of post transcription in the population as a whole, and]~~ wherein such muting